FIG. 1

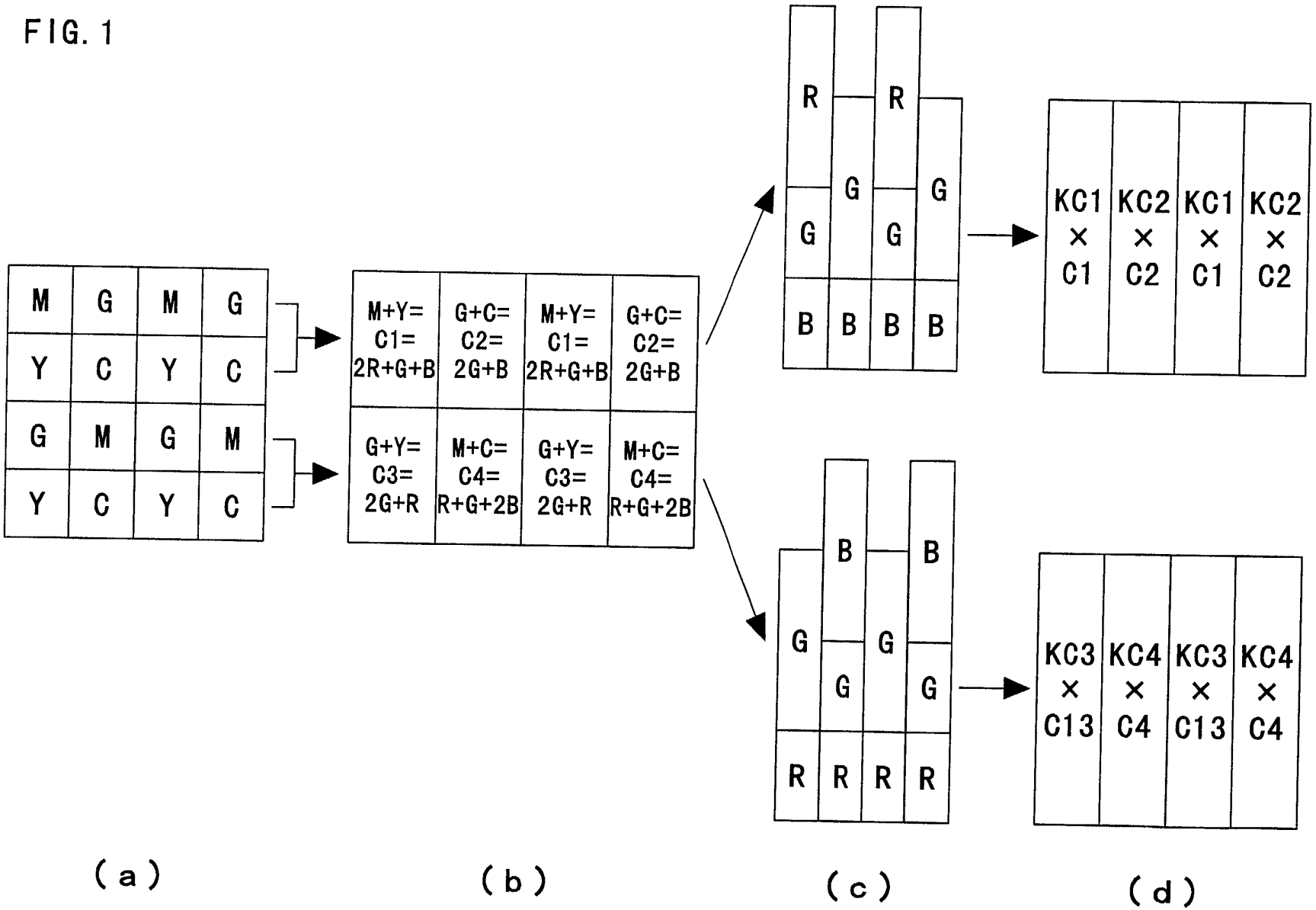

M G M G
Y C Y C
G M G M
Y C Y C
M+Y= C1= 2R+G+B
G+C= C2= 2G+B
M+Y= C1= 2R+G+B
G+C= C2= 2G+B
G+Y= C3= 2G+R
M+C= C4= R+G+2B
G+Y= C3= 2G+R
M+C= C4= R+G+2B
R R
G G G G
B B B B
KC1 × C1
KC2 × C2
KC1 × C1
KC2 × C2
B B
G G G G
R R R R
KC3 × C13
KC4 × C4
KC3 × C13
KC4 × C4
(a)
(b)
(c)
(d)

FIG. 2

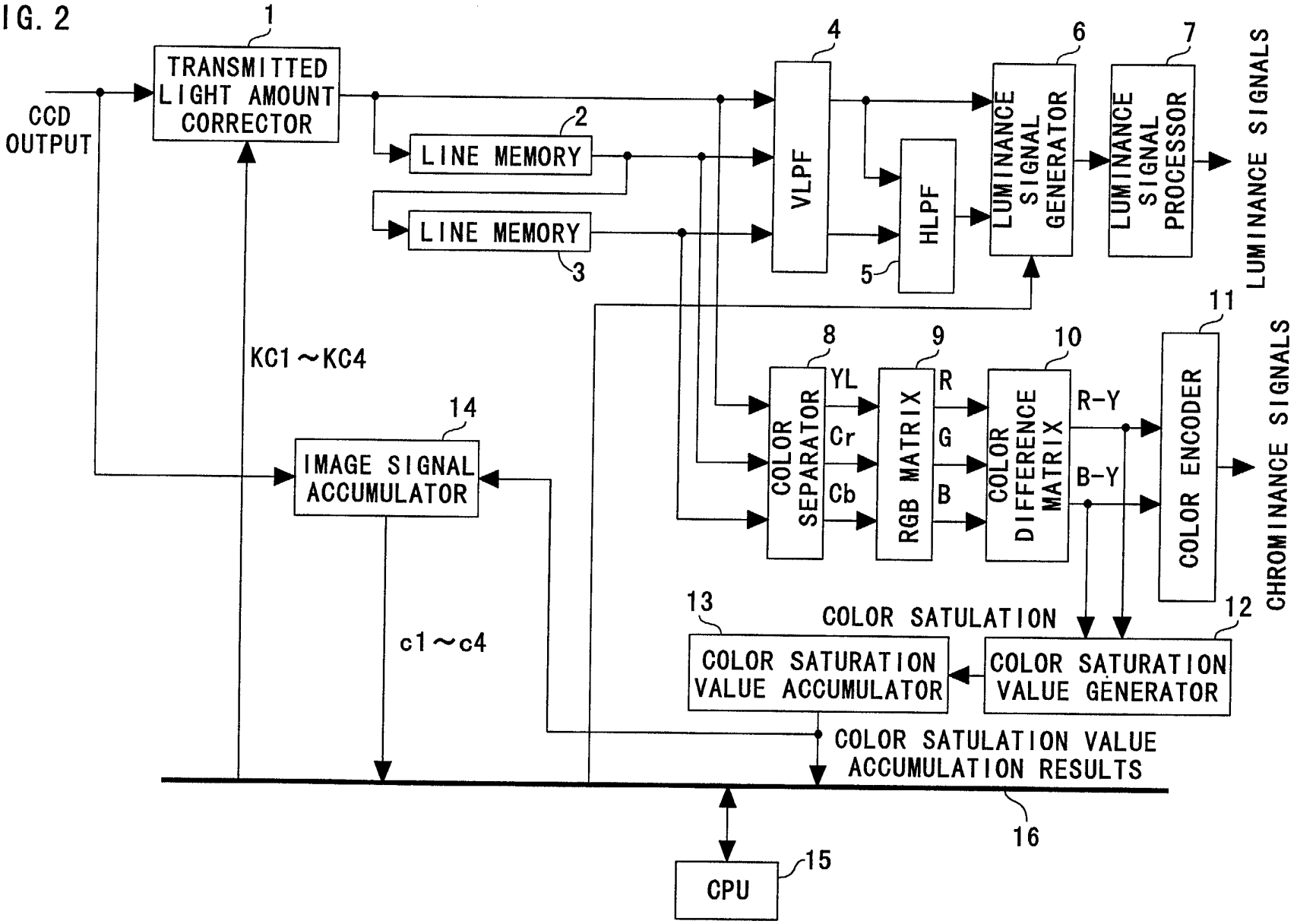

1
TRANSMITTED LIGHT AMOUNT CORRECTOR
CCD OUTPUT
2
LINE MEMORY
LINE MEMORY
3
4
VLPF
5
HLPF
6
LUMINANCE SIGNAL GENERATOR
7
LUMINANCE SIGNAL PROCESSOR
LUMINANCE SIGNALS
KC1～KC4
8
COLOR SEPARATOR
YL
Cr
Cb
9
RGB MATRIX
R
G
B
10
COLOR DIFFERENCE MATRIX
R-Y
B-Y
11
COLOR ENCODER
CHROMINANCE SIGNALS
14
IMAGE SIGNAL ACCUMULATOR
c1～c4
13
COLOR SATULATION
COLOR SATURATION VALUE ACCUMULATOR
12
COLOR SATURATION VALUE GENERATOR
COLOR SATULATION VALUE ACCUMULATION RESULTS
16
CPU
15

FIG. 3

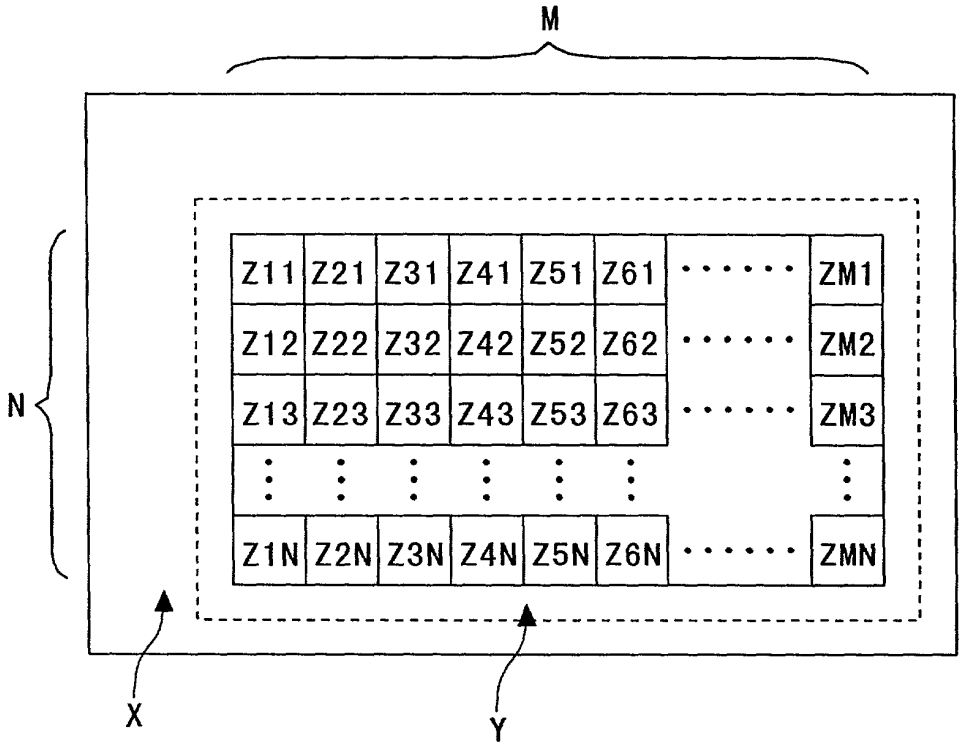

M
N
Z11 Z21 Z31 Z41 Z51 Z61 ..... ZM1
Z12 Z22 Z32 Z42 Z52 Z62 ..... ZM2
Z13 Z23 Z33 Z43 Z53 Z63 ..... ZM3
Z1N Z2N Z3N Z4N Z5N Z6N ..... ZMN
X
Y

FIG. 4

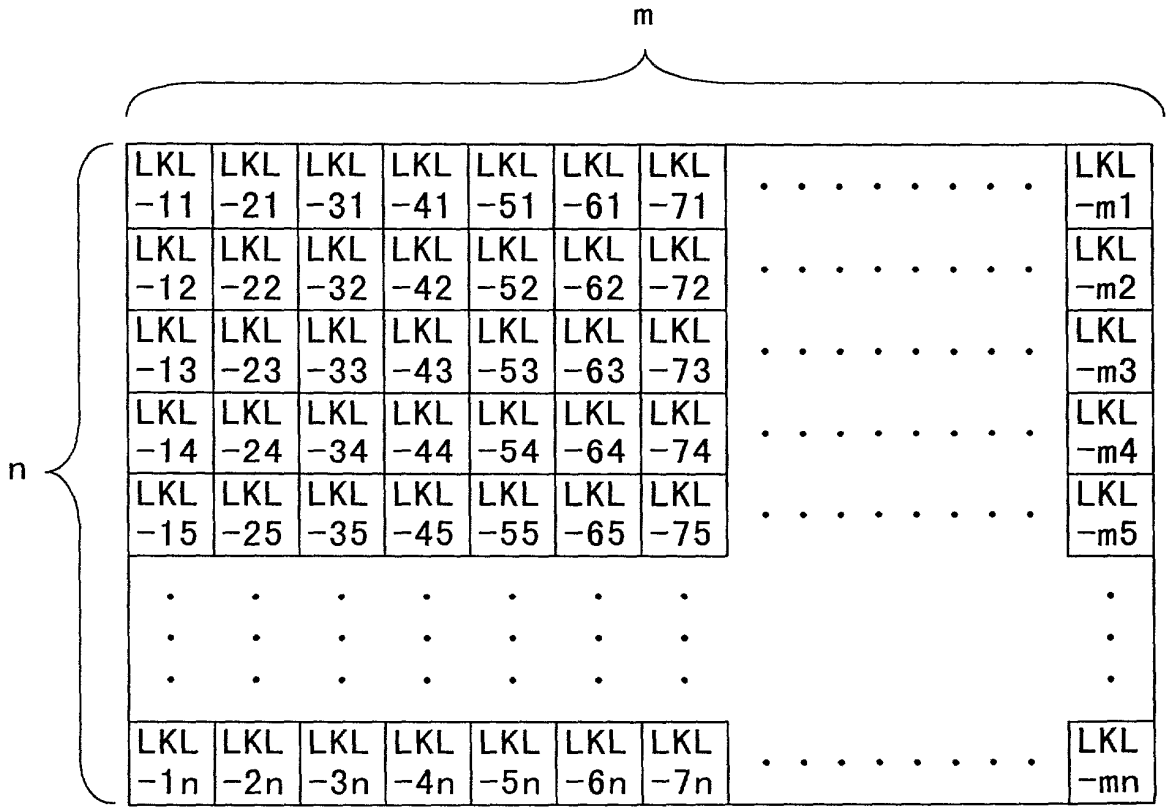
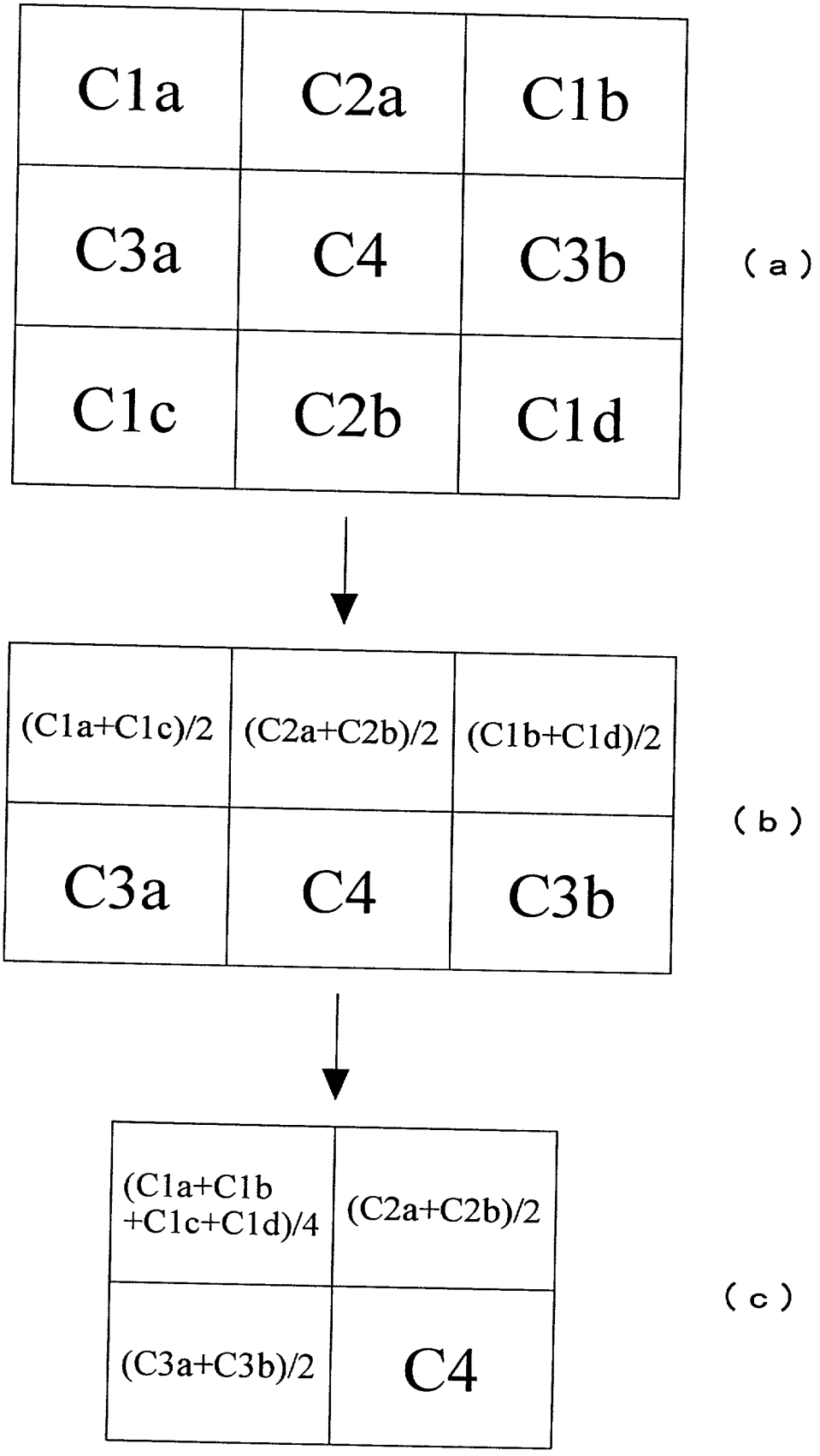

m
n
LKL-11 LKL-21 LKL-31 LKL-41 LKL-51 LKL-61 LKL-71 ..... LKL-m1
LKL-12 LKL-22 LKL-32 LKL-42 LKL-52 LKL-62 LKL-72 ..... LKL-m2
LKL-13 LKL-23 LKL-33 LKL-43 LKL-53 LKL-63 LKL-73 ..... LKL-m3
LKL-14 LKL-24 LKL-34 LKL-44 LKL-54 LKL-64 LKL-74 ..... LKL-m4
LKL-15 LKL-25 LKL-35 LKL-45 LKL-55 LKL-65 LKL-75 ..... LKL-m5
LKL-1n LKL-2n LKL-3n LKL-4n LKL-5n LKL-6n LKL-7n ..... LKL-mn

FIG. 5



EP 0 956 540 A1

FIG. 6

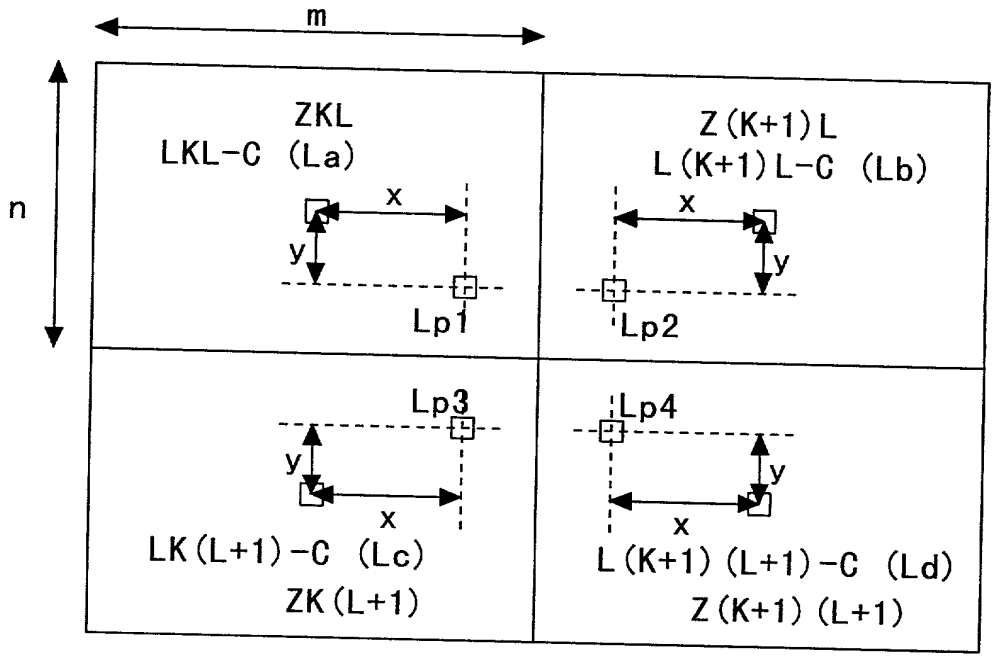

m
n
ZKL
LKL-C (La)
x
y
Lp1
Z(K+1)L
L(K+1)L-C (Lb)
x
y
Lp2
Lp3
y
x
LK(L+1)-C (Lc)
ZK(L+1)
Lp4
y
x
L(K+1)(L+1)-C (Ld)
Z(K+1)(L+1)

FIG. 7

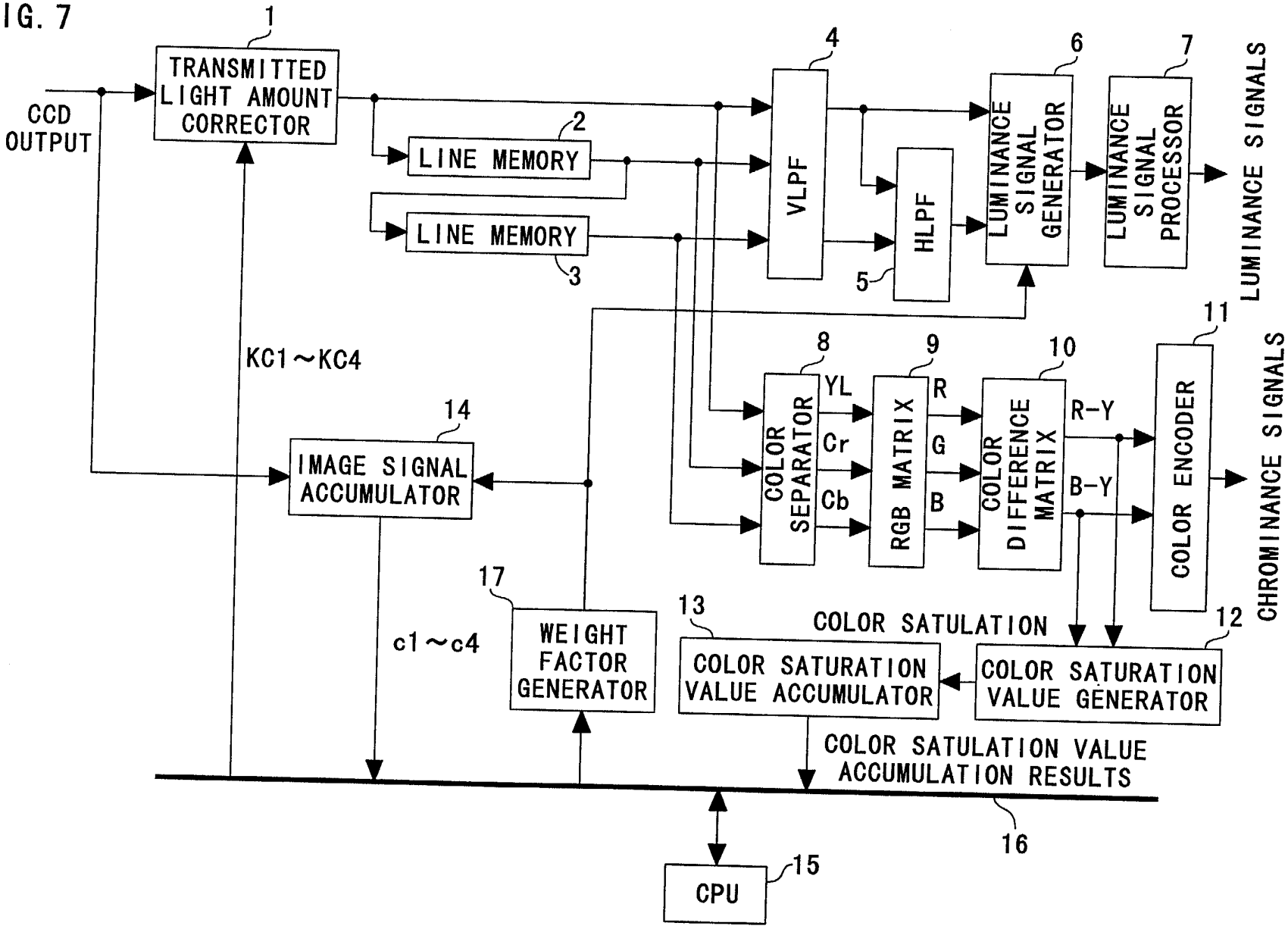

1
TRANSMITTED LIGHT AMOUNT CORRECTOR
CCD OUTPUT
2
LINE MEMORY
LINE MEMORY
3
4
VLPF
5
HLPF
6
LUMINANCE SIGNAL GENERATOR
7
LUMINANCE SIGNAL PROCESSOR
LUMINANCE SIGNALS
KC1～KC4
8
COLOR SEPARATOR
YL
Cr
Cb
9
RGB MATRIX
R
G
B
10
COLOR DIFFERENCE MATRIX
R-Y
B-Y
11
COLOR ENCODER
CHROMINANCE SIGNALS
14
IMAGE SIGNAL ACCUMULATOR
17
WEIGHT FACTOR GENERATOR
c1～c4
13
COLOR SATURATION VALUE ACCUMULATOR
COLOR SATULATION
12
COLOR SATURATION VALUE GENERATOR
COLOR SATULATION VALUE ACCUMULATION RESULTS
16
CPU
15

FIG. 8

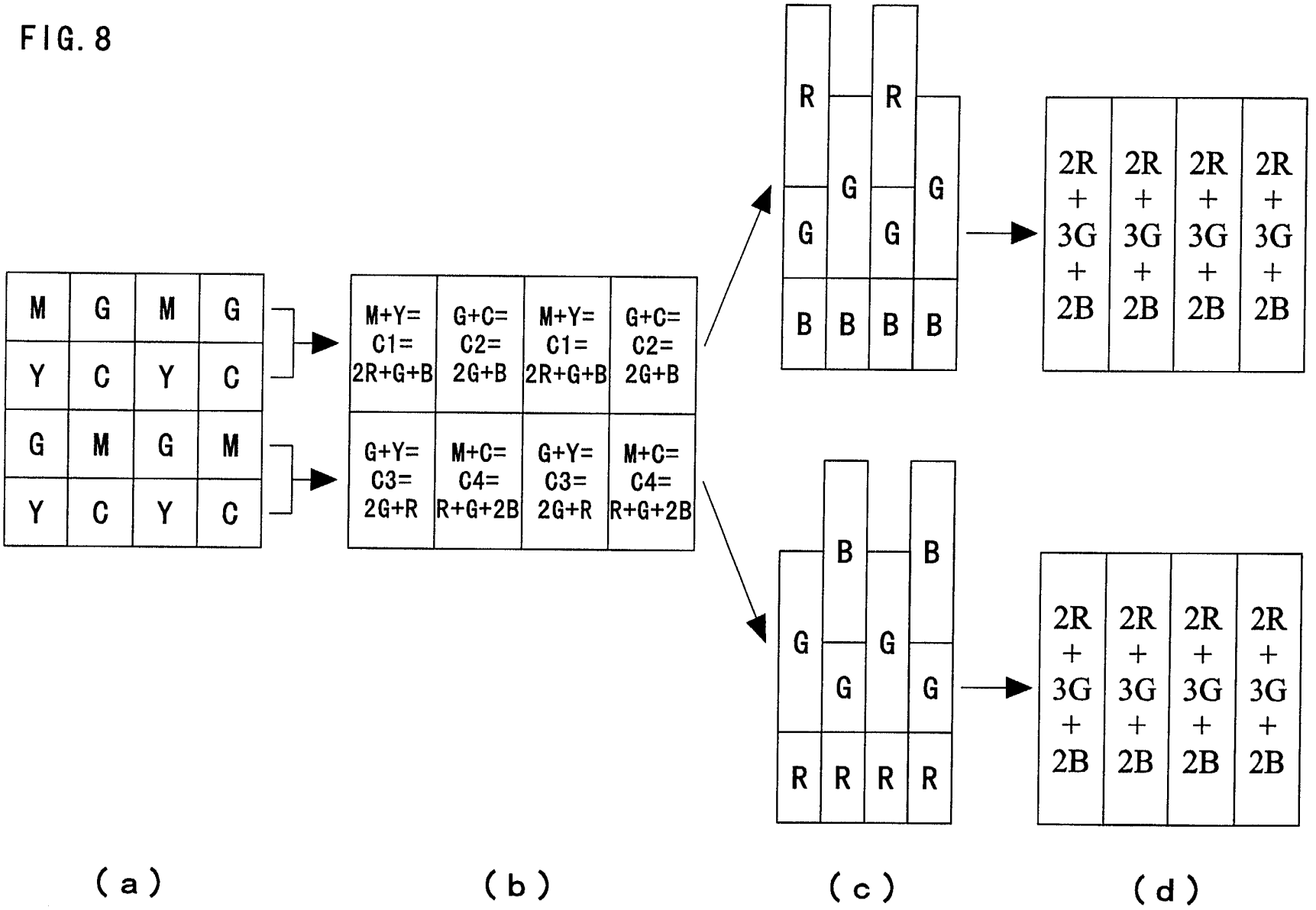
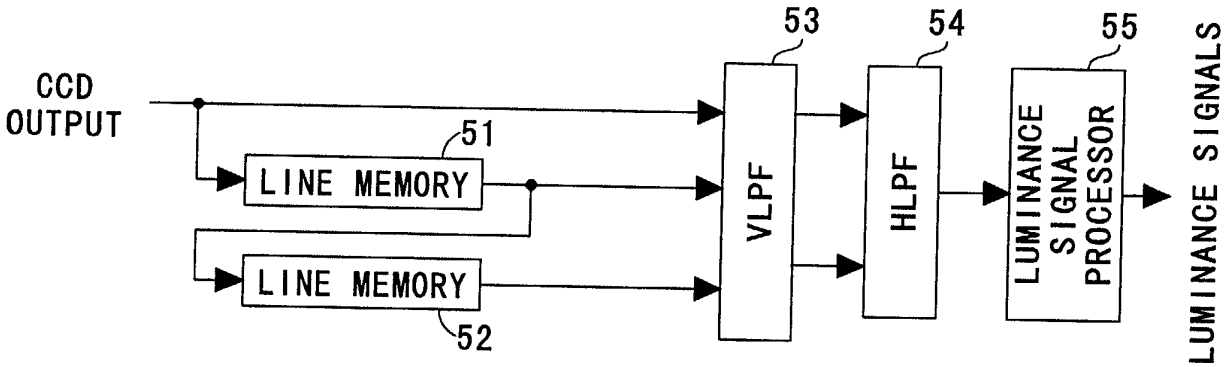

M G M G
Y C Y C
G M G M
Y C Y C
M+Y= C1= 2R+G+B
G+C= C2= 2G+B
M+Y= C1= 2R+G+B
G+C= C2= 2G+B
G+Y= C3= 2G+R
M+C= C4= R+G+2B
G+Y= C3= 2G+R
M+C= C4= R+G+2B
R R
G G G G
B B B B
2R + 3G + 2B
G G
B B
R R R R
(a)
(b)
(c)
(d)

FIG. 9

PRIOR ART